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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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09/970,487

10/03/2001

Nikolai K.N. Leung

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EXAMINER

NG, CHRISTINE Y

ART UNIT

PAPER NUMBER

2416

NOTIFICATION DATE

DELIVERY MODE

02/27/2009

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

us-docketing@qualcomm.com
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|------------------------------|-----------------|--------------|--|
| <i>Office Action Summary</i> | Application No. | Applicant(s) | |
| | 09/970,487 | LEUNG ET AL. | |
| | Examiner | Art Unit | |
| | CHRISTINE NG | 2416 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 November 2008.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 33-56 is/are pending in the application.
- 4a) Of the above claim(s) 45-56 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 33-44 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 03 October 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>1/23/09</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

1. Newly submitted claims 45-56 are directed to an invention that is independent or distinct from the invention originally claimed for the following reasons: Independent claims 45, 48, 51 and 54 claim an infrastructure element for providing broadcast transmission from a wired communication network to a wireless communication network by establishing secure tunnels to communicate with infrastructure elements of the wireless network; joining a multicast tree associated with the wired communication network; receiving an encapsulated multicast transmission over the multicast tree; and transmitting the encapsulated packet over the secure tunnels. The limitations of “providing broadcast transmission from a wired communication network to a wireless communication network by establishing secure tunnels” and the use of “secure tunnels” are not originally claimed. Furthermore, claims 46, 49, 52 and 55 claim receiving requests from the one or more infrastructure entities to join the multicast tree, which was also not originally claimed.

Since applicant has received an action on the merits for the originally presented invention, this invention has been constructively elected by original presentation for prosecution on the merits. Accordingly, claims 45-56 are withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 33, 36, 39 and 42 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent No. 6,781,999 to Eyuboglu et al.

Eyuboglu et al disclose in Figure 8 an infrastructure element (PDSN 100) for providing broadcast transmissions in a communication network, the infrastructure element comprising:

Means for joining an external multicast tree (multicast transmission over RN's 160,162, backhaul network, and RNC's 124,128). When access terminal AT 104 sends a multicast packet, PDSN 100 receives the multicast packet from RN's 160,162 via backhaul network and RNC's 124,128.

Means for joining an internal multicast tree (multicast transmission over IP core network and home agent 102). PDSN 100 then sends the received multicast packet to IP core network and home agent 102.

Means for receiving a first multicast transmission over the external multicast tree, wherein the first multicast transmission identifies a selected content source (AT 104) as a source of the first multicast transmission.

Means for encapsulating the first multicast transmission to form an encapsulated packet. AT 104 "...first tunnels the multicast packets to the PDSN over the PPP link using the AT's home address as the source address of multicast IP packets" (Column 7, lines 44-47).

Means for transmitting the encapsulated packet over the internal multicast tree in a second multicast transmission, wherein the second multicast transmission identifies the infrastructure element (PDSN 100) as a source of the second multicast transmission. "The PDSN de-tunnels these packets, and re-tunnels them again to the Home Agent using its of care-of-address as the source address" (Column 7, lines 47-49). The process is an "encapsulating style of delivery". Refer to Column 7, lines 40-52.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 34, 35, 37, 38, 40, 41, 43 and 44 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,781,999 to Eyuboglu et al in view of U.S. Patent No. 6,895,216 to Sato et al.

Referring to claims 34, 37, 40 and 43, Eyuboglu et al do not disclose wherein said means for encapsulating comprises: means for compressing the first multicast

transmission to form a compressed frame packet; and means for encapsulating the compressed frame packet to form the encapsulated packet.

Sato et al disclose compressing multicast information to several wireless terminals in accordance with a transmission rate. Refer to Column 11, lines 42-52. Furthermore, Eyuboglu et al disclose the encapsulation of packets in Column 7, lines 40-52. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include wherein said means for encapsulating comprises: means for compressing the first multicast transmission to form a compressed frame packet; and means for encapsulating the compressed frame packet to form the encapsulated packet. One would have been motivated to do so to save bandwidth and processing time.

Referring to claims 35, 38, 41 and 44, Eyuboglu et al disclose in Figure 8 wherein said means for encapsulating the compressed frame packet comprises means for encapsulating the compressed frame packet utilizing a framing protocol (Simple Link Layer Protocol SLLP). Routers use SLLP to frame multicast packets for transmission between the radio network elements of Figure 8. Refer to Column 1, lines 64-66; Column 2, lines 10-15; and Column 9, lines 6-10 and lines 22-33.

Conclusion

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, THIS ACTION IS MADE FINAL. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to CHRISTINE NG whose telephone number is (571)272-3124. The examiner can normally be reached on M-F; 8:00 am - 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ricky Ngo can be reached on (571) 272-3139. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2416

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Ricky Ngo/
Supervisory Patent Examiner, Art
Unit 2416

C. Ng
February 18, 2009